

REMARKS

Claims 1-28, 33-36, 39-44 and 46-49 are pending in the above-referenced patent application.

In the Office Action, the Examiner:
objected to the drawings;
rejected claims 11, 13-15 and 18 under 35 USC § 112, second paragraph;
rejected claims 26-45 under 35 USC § 112, first paragraph;
rejected claims 1-10, 12 and 16-19 under 35 USC § 103(a) as being
unpatentable over US 5,019,256 to Ifill et al.; and
indicated that claims 11 and 13-15 contained allowable subject matter.

Applicant acknowledges the Examiner's indication of the allowability of the subject matter of claims 11 and 13-15. Claims 11 and 13-15 have been rewritten, including all of the limitations of the base claim and any intervening claims as new claims 46-49.

The Examiner objected to the drawings for failure to show every feature of the invention. With respect to claim 7, the Examiner indicates that the recited electrodeless lamp and high frequency coupler are not shown in the drawings. According to the specification of the present application, "radiation sources" may include a variety of ultraviolet lamps, including "low pressure standard output lamps, low pressure high output lamps, low pressure triple output lamps, medium pressure lamps, electrodeless lamps and excimer lamps" and may further include "video projection lamps or street lamps." Also according to the specification, "excitation control means" may include a "ballast" or a "high frequency coupler." The drawings, for example FIG. 1, explicitly show lamp 14 and ballast 16, and thus, implicitly show radiation sources (including electrodeless lamps) and excitation control means (including high frequency excitation couplers). Furthermore, it is noted in the Background to the Invention that electrodeless lamps and frequency excitation couplers are known in the art, and thus, it is not necessary to show them in any further detail.

The Examiner also objected to the drawings for failure to show every feature of the invention specified in claims 26, 29-32, 34-39, 42, 43 and 45. Although not necessarily agreeing with the Examiner, Applicants have cancelled claims 29-32, 37, 38 and 45, thereby obviating rejections based on these claims. Applicants have also clarified claims 26, 35-36, 39, 42 and 43 by replacing the phrase "power supply" with the phrase "excitation control means," thereby obviating the Examiner's objection with respect to these claims. The figures in the present application show excitation control means (see discussion above with respect to ballast 16 and high frequency excitation coupler).

The Examiner further objected to the drawings for failure to support the recitations of claim 34. Claim 34 recites that "at least one radiation source is cantilevered from the first support member." Support for this recitation may be found in FIG. 2, wherein the support for a first end of lamp 14 is shown as conduit 11 (via ballast 16) and wherein a support for the other end of lamp 14 is not indicated.

In the Office Action, the Examiner rejected claims 11, 13-15 and 18 under 35 USC § 112, second paragraph as being indefinite. Applicant has amended claims 6, 10 and 18 to provide proper antecedent basis for the recitation of "the first elongate frame member" in claim 11 and for the recitation of "the frame member" and "the excitation controlling means" in claim 18.

Under 35 USC § 112, first paragraph, the Examiner rejected claims 26-45. Although not necessarily agreeing with the Examiner, Applicant has cancelled claims 29-32, 37, 38 and 45, thereby obviating rejections based on these claims. Applicant has further clarified claims 26, 35-36, 39, 42 and 43 by replacing the phrase "power supply" with the phrase "excitation control means," thereby obviating the Examiner's objection with respect to these claims. Support for replacing the phrase "power supply" with the phrase "excitation control means," can be found in the present application and within US Patent 6,507,028 from which claims 26-45 were copied (in order to initiate an Interference). The '028

patent discloses that a "power supply" may be referred to as a "ballast" (col. 1, lines 13-17; col. 3, line 7; and col. 4, line 10). As discussed above, with respect to the disclosure of the present application, "excitation control means" include "ballasts." With respect to claim 34, Applicant notes that FIG. 2 provides support for the claimed subject matter.

The Examiner rejected claims 1-10, 12 and 16-19 as being unpatentable over Ifill. Claims 1, 4 and 16 are independent claims. Each of these claims recites that "excitation controlling means [are] adapted to be immersed in said fluid/liquid/flowing fluid." According to the Examiner, Ifill discloses excitation controlling means which are ballasts housed in a conduit.

Ifill fails to disclose an excitation controlling means adapted to be immersed in the fluid to be treated. Ifill was discussed in the Background section of the present application. There it was noted that Ifill discloses that "the ballasts for the lamps may be located in a submerged vertical conduit which forms a part of the rack," and that "one of the problems associated with such an arrangement is that the ballasts are difficult to remove from the rack, and if one ballast needs to be replaced then all of the ballasts must be removed." Ifill further discloses that the conduit is a waterproof passage for electrical cables and that the conduit is immersed in the fluid stream. Thus, Ifill discloses that the conduit, itself, is immersed in the fluid, but that the ballast within the conduit is not immersed in the fluid, but rather is isolated from the fluid by the walls of the sealed conduit. This is an important distinction for at least two reasons. First, the cooling of the ballast by the fluid, as taught by Ifill, is less effective than in the present invention due to the isolation of the ballast from the fluid by the interposition of the conduit. Second, it is difficult, if not impossible, to replace any one ballast when they are arranged within the conduit, as opposed to the present invention, wherein every individual ballast is exposed to the fluid and, thus, easily accessible.

Ifill fails to teach or suggest that the ballast is immersed in the fluid to be treated, as recited by claims 1, 4 and 16. Therefore, Applicant respectfully

Application No. 10/009,676
Response dated July 6, 2005
Reply to Office Action of Jan. 7, 2005

submits that claims 1, 4, 16 and their dependent claims, which contain additional recitations thereto, are not rendered unpatentable by Ifill and should be passed to issue.

As Applicants have addressed each and every rejection and objection, it is respectfully requested that Examiner pass claims 1-19, 26, 27, 33-36, 39-44 and 46-49 to issue.

If any matter remains unresolved Applicant requests that the Examiner contact Applicant's representative at the number listed below.


Applicant hereby petitions for a three-month extension of time in order to file an Response to Office Action in the above-identified application. The fee of \$1020.00 required under 37 CFR 1.17(a) is enclosed.

If any additional extension of time for the accompanying response is required, applicant requests that this paper be considered a petition therefor.

The Commissioner is authorized to charge any fees under 37 CFR 1.17(a) to (d), which may be required to Deposit Account No. 13-0235.

Respectfully submitted,

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